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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,241	12/16/2004	Roger Philip Duffy	038665.55712US	8336
23911 7590 03/19/2009 CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			EXAMINER WATKINS III, WILLIAM P	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 03/19/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/518,241

**Applicant(s)**

DUFFY, ROGER PHILIP

**Examiner**

William P. Watkins III

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4-9, 11-14 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-9, 11-14 and 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-9, 11-14 and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kromrey (U.S. 4,983,341) in view of Cole et al. (U.S. 4,325,899) further in view of Muir et al. (U.S. 2002/0124945 A1).

Kromrey teaches a breather sheet that has a central glass bead layer that has a porous glass fiber layer on top of the bead layer to protect the bag, and a porous fiber release layer under the bead layer in contact with the laminate to be consolidated. The reference teaches venting through the bead layer parallel to the plane of the bead layer and more restricted venting normal to the plane of the bead layer because of the more limited permeability of the fabric layers (col. 3, line 65 through col. 4, line 30). Cole et al. teaches the use of a metal mesh layer to allow venting in the plane of the metal mesh in a mold (abstract, col. 5, lines 40-60). Muir et al. teaches the use of perforations in a mold layer to allow increased venting through a layer to reduce blisters in a molded laminate. Variation in size and distribution of the holes in the layer to increase

ventilation is within the ordinary skill of the art depending on the amount of gas to be vented (abstract, sections 0042 and 0043).

The instant invention claims a breather sheet comprised of a mesh between two outer layers that are perforated. It would have been obvious to one of ordinary skill of the art to have substituted the metal mesh layer of Cole et al. for the glass bead layer of Kromrey as the metal mesh layer serves a similar function of allowing cross ventilation when the laminate is compressed in the mold. It further would have been obvious to one of ordinary skill in the art to have perforated the outer fiber layers of Kromrey in view of Cole et al. to increase the venting flow normal to the plane of the sheet because of the teachings of Muir et al. to increase vapor flow through a layer in a mold by perforation of the layer. Location of the holes so as not to be blocked by the mesh member would have been an obvious matter as well as location of any adhesive so as not to block the perforations in order to promote the desired venting function.

3. Applicant's arguments with respect to claims 1, 4-9, 11-14 and 17-21 have been considered but have not been found to be persuasive.

Applicant argues that the fabric layer element 107 in Kromrey is a flexible fabric and thus does not meet the instant semi-rigid layer limitation. Element 107 is described as being "#1581 breather". Seal et al. (U.S. 6,521,296 B1) describes a "1581 bleeder" as being made of fiber glass (col.11, lines 35-55). The instant specification discloses glass fiber as being a semi-rigid material (page 5, lines 5-10). The examiner thus takes the #1581 breather of Kromrey as being a semi-rigid material that meets the instant claim

limitations. Applicant also argues that Muir et al. is drawn to blow molding and not consolidation of a laminate. Though not from the identical art area, Muir et al. deals with the common problem of venting gas released by a molding process. Kromrey teaches that a solid layer may block venting (col. 4, lines 5-15). Muir et al. teaches a solution to this problem by putting apertures in the layer. It would have been obvious for one of ordinary skill in the art to have looked to a related reference that solves a similar problem such as Muir et al. Applicant also argues that one of ordinary skill in the art would substitute a mesh for all of the layers of Kromrey, and thus mark the surface of the material to be molded. The position of the examiner is that one of ordinary skill in the art would not do a bodily incorporation but instead would just substitute for the glass bead layer, which provides the breathing space, and keep the outer layers which prevent indentations on the cured product.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Watkins III whose telephone number is 571-272-1503. The examiner works an increased flex time schedule, but can normally be reached Monday through Friday, 11:30 A.M. through 8:00 P.M. Eastern Time. The examiner returns all calls within one business day unless an extended absence is noted on his voice mail greeting.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WW/ww  
March 19, 2009

/William P. Watkins III/

Primary Examiner, Art Unit 1794

